PRANVEER SINGH INSTITUTE OF TECHNOLOGY

Mini Project Proposal

Team Id: 23_CS_IOT_2B_12

Team Details:

S No	Full Name	Roll No	Branch & Section	Mob No
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Project Title:

"Smart Plant Care Companion: Controlled Plant Watering and Monitoring System"

Domain: (Select all relevant Options)

1. Software-Web Application	2. Software-Mobile Application
3. Artificial Intelligence/Machine Learning/Deep Learning	4. Computer Vision/Image Processing
5. Blockchain	6. Internet of Things
7. Natural Language Processing	8. Big Data / Cloud Computing
9. Others (Specify if any):	

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Problem Statement:

"Inefficient and imprecise plant watering practices often lead to overwatering or underwatering, resulting in plant stress, reduced growth, and unnecessary water wastage. There is a need for an intelligent and user-friendly system that can autonomously monitor soil moisture levels, assess plant-specific watering needs."

Relevance of Smart Plant Watering System in Today's Society:

➢ Water Conservation: Helps save water by avoiding overwatering and optimizing watering schedules, crucial in water-scarce regions.

➢ Energy Efficiency: Incorporates automation, reducing energy use.

➢ Urban Gardening: Enables efficient care for plants in urban and small spaces.

➢ Education: Provides plant care knowledge, fostering a connection with nature.

Proposed Solution:

We will create a Smart Plant Watering System with:

➢ Soil Moisture Sensing

➢ Automatic Watering

➢ Low Maintenance

Unique/Distinctive feature of the solution:

To make our project unique, we will use the following strategies:

➢ Creative Design

➢ Educational Content

➢ Cost-Effective Tech

Tools/Technology Uses:

Hardware Requirements:

➢ Microcontroller (e.g., Arduino Uno or ESP8266)

➢ Soil Moisture Sensor

➢ Water Pump

➢ Tubing for Water Delivery

➢ Relay Module

➢ Water Reservoir (e.g., plastic container)

Software Requirements:

➢ Arduino IDE

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(To be Filled by Faculty/Evaluator)

Proposal Evaluation:

1. Right Identification of the Problem (Appropriate selection of the problem)?
   a) Excellent b) Good c) Needs Improvement d) Unacceptable

2. Relevance of the Solution (Adequately addressing the problem/need)?
   a) Excellent b) Good c) Needs Improvement d) Unacceptable

3. Innovativeness in the Solution (Distinctive innovative components/features of the solution)?
   a) Excellent b) Good c) Needs Improvement d) Unacceptable

4. Uniqueness of the Solution (Intellectual Property Component)?
   a) Excellent b) Good c) Needs Improvement d) Unacceptable

Improvements/ Suggestions by the Evaluator:

1.
2.
3.
4.

Name of Faculty:

Designation:

Signature with Date:

Guidelines:

- One Proposal per team will be submitted by the team leader only.
- A Team can have maximum 5 Members.
- Upload the document in .doc or .pdf format with font size 12, single spacing, Times New Roman font only.